

Applicant: Marc Hendriks
Serial No. 09/727,461
Page 2

CLAIMS

Please cancel previously withdrawn claims 7, 15-24, 31, 39-48, 53 and 54 without prejudice or disclaimer as to the subject matter thereof.

1. (currently Amended) An implantable medical device comprising:
a housing having an exterior surface;
a polymer film applied to the exterior surface of the implantable medical device housing; and
a polynucleotide associated with at least a portion of the polymer whereby said polynucleotide encodes for an antimicrobial peptide, thus providing for an antimicrobial effect after said polynucleotide is released from said polymer film and said polynucleotide is expressed in and the encoded antimicrobial peptide is delivered by the cells and tissues surrounding said medical device and providing an antimicrobial effect to inhibit the growth of pathogenic microorganisms.
2. (previously presented) The medical device of claim 1 wherein the implantable medical device is an implantable pulse generator.
3. (Cancelled)
4. (original) The medical device of claim 1 wherein the polymer is a porous polymer.
5. (original) The medical device of claim 4 wherein the porous polymer is a natural porous polymer.
6. (original) The medical device of claim 5 wherein the natural porous polymer is selected from the group consisting of collagen, gelatin, elastin, fibrin, hyaluronic acid, and a glycosaminoglycan.

Applicant: Marc Hendriks
Serial No. 09/727,461
Page 3

7. (canceled)

8. (original) The medical device of claim 4 wherein the porous polymer is a synthetic porous polymer.

9. (original) The medical device of claim 8 wherein the synthetic porous polymer is a biodegradable synthetic porous polymer selected from the group consisting of polyglycolic acid, polylactic acid, polydioxanone, poly(ϵ -caprolactone), polyanhydrides, poly(β -hydroxybutyrate), poly(ortho esters), poly(amino acids), polyiminocarbonates, and mixtures thereof.

10. (original) The medical device of claim 1 wherein the polynucleotide comprises a coding sequence encoding an antimicrobial peptide.

11. (original) The medical device of claim 1 wherein the polynucleotide is condensed.

12. (original) The medical device of claim 11 wherein the condensed polynucleotide is linked to a receptor ligand.

13. (original) The medical device of claim 1 wherein the polynucleotide is enclosed in a liposome.

14. (original) The medical device of claim 13 wherein the enclosed polynucleotide is linked to a receptor ligand.

15-24. (canceled)

Applicant: Marc Hendriks
Serial No. 09/727,461
Page 4

25. (currently amended) A method for reducing implantable medical device-related infections in a patient, the method comprising:

providing a medical device comprising a housing having a surface provided with a polymer film; and

providing a polynucleotide associated with at least a portion of the polymer; and

wherein the polynucleotide is released from the medical device upon being implanted in a patient, whereby said polynucleotide encodes for an antimicrobial peptide, thus providing an antimicrobial effect after said polynucleotide is expressed in and the encoded antimicrobial peptide is delivered by the cells and tissues surrounding said medical device.

26. (original) The method of claim 25 wherein the carrier is an implantable pulse generator.

27. (cancelled)

28. (original) The method of claim 25 wherein the polymer is a porous polymer.

29. (original) The method of claim 28 wherein the porous polymer is a natural porous polymer.

30. (original) The method of claim 29 wherein the natural porous polymer is selected from the group consisting of collagen, gelatin, elastin, fibrin, hyaluronic acid, and a glycosaminoglycan.

31. (canceled)

32. (original) The method of claim 28 wherein the porous polymer is a synthetic porous polymer.

Applicant: Marc Hendriks
Serial No. 09/727,461
Page 5

33. (original) The method of claim 32 wherein the synthetic porous polymer is a biodegradable synthetic porous polymer selected from the group consisting of polyglycolic acid, polylactic acid, polydioxanone, poly(ϵ -caprolactone), polyanhydrides, poly(β -hydroxybutyrate), poly(ortho esters), poly(amino acids), polyiminocarbonates, and mixtures thereof.

34. (original) The method of claim 25 wherein the polynucleotide comprises a coding sequence encoding an antimicrobial peptide.

35. (original) The method of claim 25 wherein the polynucleotide is condensed.

36. (original) The method of claim 35 wherein the condensed polynucleotide is linked to a receptor ligand.

37. (original) The method of claim 25 wherein the polynucleotide is enclosed in a liposome.

38. (original) The method of claim 37 wherein the enclosed polynucleotide is linked to a receptor ligand.

39-48. (canceled)

49. (currently amended) A method for reducing implantable medical device-related infections in a patient, the method comprising:

providing an implantable medical device comprising a housing having a surface provided with a polymer film;

providing a polynucleotide; and

contacting the polymer with the polynucleotide, whereby said polynucleotide encodes for an antimicrobial peptide, thus providing for an antimicrobial effect after said polynucleotide is released from said polymer film and said

Applicant: Marc Hendriks
Serial No. 09/727,461
Page 6

polynucleotide is expressed in and the encoded antimicrobial peptide is delivered
by the cells and tissues surrounding said medical device.

50. (original) The method of claim 49 wherein the polynucleotide comprises a coding region encoding an antimicrobial peptide.

51-54. (cancelled)